

CLAIMS:

1. An optical lens set comprising:

a) a first lens set element having a first optical axis and including a first lens having a first curved lens surface having a first entrance pupil with a first diameter, wherein said first lens set element is of a first width in a direction perpendicular to said first optical axis; and

b) a second lens set element having a second optical axis and including a second lens having a second curved lens surface having a second entrance pupil with a different, second diameter which is smaller than said first diameter, said second lens set element having an inner part and an outer part arranged in a direction perpendicular to said second optical axis, said inner part including said second lens, wherein said first and second lens set elements are adapted to form a lens assembly including said first and second lenses, characterized in that said outer part extends to a second width in a direction perpendicular to said second optical axis, which second width is greater than said first width.

2. An optical lens set according to claim 1, wherein the thickness of said first lens along said first optical axis is greater than the thickness of said second lens along said second optical axis.

3. An optical lens set according to claim 1 or 2, wherein a ratio of the thickness of said second lens along said second optical axis divided by said second diameter is at least 0.5.

4. An optical lens set according to any preceding claim, wherein said first width is the maximum width of said first lens set element perpendicular to said first optical axis and said second width is the maximum width of said second lens set element perpendicular to said second optical axis.

5. An optical lens set according to any preceding claim, wherein said first or second set element has a protrusion which is shaped to interfit with a surface of said second or first set element, respectively.

5 6. An optical lens set according to any preceding claim, wherein said outer part includes a removable part arranged to be removed during an assembly process.

7. An optical lens set according to claim 6, wherein said outer part comprises an area of reduced thickness in a direction parallel to said second optical axis, and wherein said
10 removable part is detachable by severing said outer part in said area of reduced thickness.

8. An optical lens set according to any preceding claim, wherein said inner part is attachable to said first optical element to form a lens stack, and wherein the thickness of said outer part in a direction parallel to said second optical axis is greater than the maximum
15 thickness of said lens stack when so formed.

9. An optical lens assembly comprising an optical lens set according to any preceding claim, wherein said first and second lens set elements are mutually attached.

20 10. An optical scanning device for scanning optical record carriers, the device including an optical lens assembly according to claim 9.

11. A method of assembling an optical lens set comprising:

25 a) providing a first lens set element having a first optical axis and including a first lens having a first curved lens surface having a first entrance pupil with a first diameter, wherein said first lens set element is of a first width in a direction perpendicular to said first optical axis;

b) providing a second lens set element having a second optical axis and including a second lens having a curved lens surface having a second entrance pupil with a
30 different, second diameter which is smaller than said first diameter, wherein said second lens set element has an inner part and an outer part arranged in a direction perpendicular to said second optical axis, said inner part including said second lens; and

c) attaching said first lens set element to said second lens set element by bonding an attachment surface of said first lens set element to an attachment surface of said second lens set element so that said first and second optical axes are aligned with each other,

characterized in that said outer part extends to a second width in a direction
5 perpendicular to said second optical axis, which second width is greater than said first width.